

AMATEUR RADIO



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AMATEUR RADIO

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Magazine Committee:-

Editor—W. R. GRONOW (VK3WG).
 Technical Editor—R. H. CUNNINGHAM (VK3ML); Notes—C. SERLE (VK3RX);
 Compilation—V. E. MARSHALL (VK3UK);
 Secretary—T. POWERS (VK3PS)

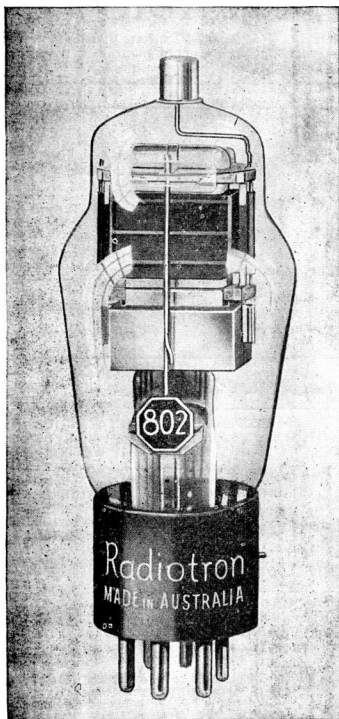
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Editorial . . .

Probably never in the history of Amateur Radio has the necessity for adequate representation, internationally and within the confines of each country, been so imperative as to-day. The "battle for frequencies" accentuated at Cairo cannot be fought by the Amateurs as individuals and we may truly be proud and contented that the I.A.R.U. is our representative body internationally backed so solidly and effectively by the A.R.R.L. in the first place and then by the weight of all affiliated societies throughout the world. In our own country we are also fortunate that our destiny is in the hands of such a well organised body as our society, the W.I.A., for from the average member's viewpoint it can be regarded as an ideally democratic body.

In these coming months some big decisions must be made by the institute; for instance, the Chief Inspector of Wireless, Mr. J. Malone, stressed at the recent Federal Convention Dinner the fact that the Department viewed with disfavour the increasing use of telephony in Amateur communication, particularly as there is a tendency among Amateurs to disregard the use of Morse transmission entirely. Mr. Malone said he considered that the Amateur would do well to spend more of his time in using cw, thus making more effective use of the limited frequencies available. He mentioned further that the Amateur must be prepared to expect commercial allocations to be made on the high frequency end of the 7 mc band in the near future.

These are two of many problems before us at the present time, a time, as we reiterate, that demands a completely unified front as never before. We must have a clear cut policy on all these problems. Ordinary members have ample opportunity in their divisions for expressing their considered opinions either at general meetings or through one of their

divisional councillors. A majority decision in the council means the passing on of the opinion to the Federal Executive and finally a majority decision of divisions means a mandate to the Federal body in their negotiations with the authorities.

Perhaps never before has a non-member of the W.I.A. had brought home so forcibly the absolute necessity for organised Amateur Radio. If he stays outside he deprives the Institute of the additional strength brought by his membership, but, from his own point of view, by not joining he deprives himself of the only effective way of voicing his ideas and shouldering his rightful share of the responsibility which activity in his hobby entails.

The Federal Convention

The 1939 Federal Convention was held in Melbourne during the Easter holiday period. The delegates who attended were J. Corbin, 2YC, N.S.W., V. Marshall, 3UK, Victoria, H. Moorehouse, 7HM, Tasmania, H. Cadlecott, 2DA, Federal Headquarters. M. Campbell, 3MR, was proxy for Queensland, G. Thompson, 3TH, for South Australia, and H. Stevens, 3JO, for West Australia. In the absence of the Federal President and Federal Vice-president, W. Gronow, 3WG, the Victorian Division President, was invited by the Convention to take the chair. The Convention sat for 21½ hours and discussed over forty agenda items.

Decisions of general interest include:—

1.—The appointment of the Victorian Division to be Headquarters Division.

2.—The running of the annual National Field Day Contest as an interstate rather than dx contest.

3.—The next annual Federal Convention to be held in Adelaide during Easter, 1940.

(Continued on page 9.)

Frequency Measuring Device

(By R. H. Cunningham, VK3ML, Technical Editor.)

The amateur's experimental licence requires that a station operating in the amateur bands shall possess apparatus capable of measuring frequencies. This demands the construction of a suitable frequency or frequency-monitor meter which is a relatively simple matter. There are limitations to the performance of home made meters of this type and the greatest of all is the calibration of the meter. The ideal meter would be one that could be constructed in a ham workshop and calibrated from a local standard source. Such a source on the higher frequencies is not available in Australia and one is forced to resort to some form of sub-standard meter for the check. Several of our local hams have been in hot water with overseas frequency checking stations for out of band operation and it has been found that their frequency meters have not been sufficiently accurate owing to false calibration. Finally, even though a very reliable source of frequency standard may have been employed in checking a meter, there is no guarantee that such a calibration is going to hold over a period of years. It is well known that even in the commercial field frequency measuring devices are "run-in" for some years before being supplied to customers as "standards."

It is for these reasons, as well as others too numerous to mention, that the ham must seek some definite source of frequency standard which is available at all times to him and to use it for the initial calibration and for constant checks.

Of the few sources available the most reliable and convenient is found amongst the B/C stations who must maintain a stability within at least 50 cycles. With such a standard on tap to any ham in any part of the continent it is now just a matter of devising equipment that will allow this standard to be reflected into amateur bands. The requirements of a satisfactory amateur frequency meter might be listed as follow:—

- i. Must be capable of supplying frequency calibrations of known values.
- ii. Will generate sufficiently strong harmonics for use down to 56 mc.
- iii. Can readily indicate band edges.
- iv. Could be used for band location in any part of the H.F. spectrum.

It might appear as though we are asking too much of such a meter, but fortunately, the construction of an instrument of this type is simple and economical. I found the very job

B for BASSETT—the modern concentric transmission feeder that abolishes the use of spreaders and insulators. THE cable that gets 100 per cent. RF power into the antenna, and is as flexible as rope. Ideal for beams and mobile services. Available as follows:

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34 " 1000 "	64 " 500 "

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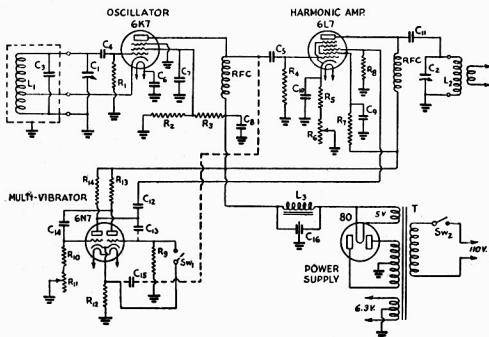
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to do all this in the form of an excellent article by George Grammar in QST for June, 1938. Rehashing is not the main object of this article, although it cannot be avoided. The idea of presenting the story is to illustrate how such a unit could be made from locally available material

and to try and encourage hams to adopt this simple and very valuable frequency measuring device, for their own protection and edification.

Readers are recommended to read Grammar's article as this write-up is only a brief resume of construction and operation.



- C1 100 mmfd variable (Eddystone 1130).
- C2 140 mmfd variable (Eddystone 1131).
- C3 0.0011 mfd low drift condenser.
- C4, C5 250 mmfd mica (T.C.C.).
- C6, 7, 8, 9 0.1 paper condensers.
- C10 0.01 mfd, 400 volt.
- C11, 12, 13, 14 0.002 mfd mica (T.C.C.).
- C15 10 mmfd trimmer (Eddystone 1100).
- R1 0.25 meg. I.R.C. resistor.
- R2 0.05 meg. I.R.C. resistor.
- R3 0.025 meg. I.R.C. resistor.
- R4 0.1 meg. I.R.C. resistor.
- R5 500 ohms I.R.C. resistor.
- R6 0.025 meg volume control.
- R7 15.000 I.R.C. resistor.
- R8 0.05 meg. I.R.C. resistor.
- R9 0.03 meg. I.R.C. resistor.
- R10 0.02 meg. I.R.C. resistor.
- R11 15.000 ohm. volume control.
- R12 300 ohms $\frac{1}{2}$ watt.
- R13, 14 2500 ohm I.R.C. resistor.

- R.F.C. (where used, Eddystone 1066).
- L1 100 kc. Eddystone type 932/GY coil.
- 1000 kc Eddystone type 932/P coil.
- 10,000 kc Eddystone type 932/Y coil.
- L2 550-1200 kc 130 turns No. 28 enamelled.
- 1200-3300 kc 70 turns No. 20 enamelled.
- 3300-7500 kc 22 turns No. 20 enamelled.
- 15-6.8 mc 11 turns No. 20 enamelled, length 1 inch.
- 32-13.5 mc 5 turns No. 20 enamelled, length 1 inch.
- 56 mc 2 turns No. 16 enamelled, 1 inch diameter.
- All coils except 56 mc are wound on standard Eddystone formers.
- Tubes required: 1 6K7, 1 6L7, 1 6N7, R.C.A.

The Circuit.

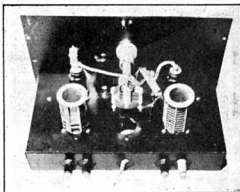
The circuit arrangement as reproduced here, shows an R.F. power generating supply in the form of a 100-kc electron coupled oscillator of high stability and an harmonic amplifier stage using a 6L7 tube. This stage is necessary in order that harmonics of a high order may be amplified for operation on the 56 mc band. Injected into the grid of the 6L7 is also the output of the multivibrator tube, the 6N7. With the oscillator tuned to 100 kc and the multivibrator locked in at 10 kc, it is possible to produce a range of harmonics spaced 10 kc apart, which may be amplified by tuning the plate of the 6L7 to the frequency desired. A link coupling coil wound on the tank coil former is coupled at the other end to the aerial terminals of the receiver. Besides the 100 kc oscillator coil it will be necessary to also have coils wound for RF generation on 1,000 and 10,000 kc.

The Multivibrator.

A slender explanation of the operation of the multivibrator would not be amiss here should a reader not have this particular copy of QST. When the grid and plate circuits of a twin triode tube such as the 6N7 are connected by a combination of resistances and capacitances the tube will oscillate at a frequency dependant on the values of these components; in this case it is approximately 10 kc. However, a multivibrator is a highly unstable oscillator and when listened to on a receiver sounds like some of the 56 mc self controlled oscillators of days gone by! Fortunately it is an easy oscillator to "lock" and thereby control its stability. The principle is similar to a "locked crystal oscillator" where a self excited oscillator is made to perform on one frequency only by the presence of a quartz crystal loosely coupled in the circuit. With the 100 kc oscillator as the stable signal generator operating at several times the frequency of the multivibrator, it is found that the harmonic of this oscillator will be sufficiently strong enough to "lock" the multivibrator on 10 kc. It is important that the values of coupling resistances and capacities in the 6N7 tube be adhered to within reasonable limits otherwise the tube will perk

on something other than 10 kc. A frequency control is made for the multivibrator by means of the grid resistor R11. With the components chosen it will be found that the multivibrator can be made to lock from its 8th to its 12th harmonics. There will be one setting on the R11 scale where the 10th harmonic will be located.

Without the multivibrator of course a receiver will pick up the oscillator every 100 kc, which in themselves are valuable spotting points. With the multivibrator



locked at 10 kc a whole flock of signals will be heard over the bands spaced at 10 kc intervals. These spots are of immense value in measuring frequencies as well as locating a transmitting station on a known frequency day after day.

Power Supply.

In this locally made instrument no internal power supply was incorporated but apparently no harm can result by installing one according to Grammar. However, having an Eddystone two tube receiver cabinet on hand it was found that the whole outfit, less the power supply, fitted in beautifully and was put into immediate effect. Of course labour saving was not the last consideration!

Construction.

Anyone who has carefully built a two or three tube SW receiver will find the construction of this device just as simple. Rigidity is vitally important as well as the careful spacing of components to avoid heat effects from the metal tubes, especially in the 6K7 oscillator circuit. A range of plug-in coils for both the oscillator and amplifier stages is necessary and the number is depend-

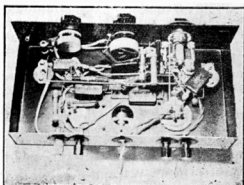
ant on the frequency range to be covered. For frequencies lower than 28 mc there will be no need for the 10,000 kc oscillator coil, and amplifier coils need only be wound for desired bands. Installing the whole works in a metal cabinet ensures freedom from hand capacity effects on the oscillator, but this is optional and if one cares to place a coil shield over the 100 kc coil "air protection" will suffice.

The photographs clearly indicate the layout chosen for this unit. The rear chassis view shows the 6K7 100 kc oscillator tube at the right with its coil along side. In the centre is located the oscillator tank condenser, C1, at the rear of which is the 6N7 multivibrator tube. The 6L7 amplifier tube and tank coil are at the left. Behind the 6L7 is the on-off multivibrator switch, SW1. Two heater and two H.T. terminals at the rear of the chassis are apparent and likewise the link coupling coil lead for attaching the output of the harmonic amplifier to the receiver input terminals.

The under chassis view shows the amplifier tank condenser at the left with the coil base immediately in front of it. The centre variable resistor belongs to the grid circuit of the multivibrator whilst the one on the right controls the output of the 6L7 amplifier (R6). An additional feature incorporated in this unit over Grammer's version is the use of RF chokes in the plate circuits of both the 6K7 and 6L7 tubes. They are used as a precautionary measure as well as a convenient wiring mount for the H.T. Leads. The chassis

measures 12 x 6 x 2 inches with the panel at 12 x 7 inches. To guard against instability a solid slow motion dial was chosen with a 10:1 reduction and an adjustable insulated bracket holds the 100 m.mfd oscillator condenser firmly down.

The trouble of winding an oscillator coil for 100 and 1000 kc was finally overcome by employing two of the ready wound Eddystone coils which cover the desired range. However, for those who desire to wind their own a winding table is given.



Preliminary adjustments.

The first step in adjusting the device is to set the oscillator on 100 kc. This is where a TRF or superhet B/C receiver with a BFO will come in. A list of B/C station frequencies will also be handy. Wrap a wire from the grid of the amplifier over the lead-in of the receiver. With the multivibrator switch closed and the receiver tuned dead beat to some B/C station operating preferably on

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some multiple of 100 kc, swing C1 over the scale until a beat is picked up by the receiver. In order to prove the oscillator is on 100 kc tune the receiver to another station on an even number of 100 kc and one should hear the 100 kc oscillator again within a few cycles. If it is not audible at this spot the fundamental cannot be 100 kc and it will be necessary to change C1 capacity until this operation produces a beat on the two B/C stations. When 100 kc has been located make a note of the dial reading.

Operation two requires a coil in the plate circuit of the amplifier stage. Choose say, the 3.5 mc band to play with. Pick up one of the 100 kc harmonics and swing C2 around until there is a definite increase in signal strength to show resonance. If this chokes up the receiver back off the signal by increasing R6. Record on paper the dial readings on the receiver where several 100 kc harmonics have been spotted.

Stage three brings in the multi-vibrator. Open SW1 and observe the glorious collection of signals that have sprung up over the band. Choose two adjacent 100 kc spots on the receiver and count the number of carriers between them (not counting the 100 kc signals themselves). There should be one less than the number of the harmonic at which the multivibrator is locked. For instance, if nine additional signals are heard, the multivibrator is locking at its tenth harmonic, and if the oscillator is on 100 kc the signals will be spaced 10 kc apart. If seven additional carriers are heard, the multivibrator is locked on its eighth harmonic and signals will be 100/8, or 12.5 kc apart. The 10 kc locking is obtained by the adjustment of resistor R 11. As this is varied the intermediate signals will jump suddenly from one frequency to another as the control changes over to a new harmonic. To use Grammer's grammar, there is no gradual change. This jumping, plus stability equal to that of the 100 kc points themselves, is evidence that the multi-vibrator is under control. In each step the resistor may be varied over a fair range before the control order changes. In general, the most desirable adjustment is the one which maintains the intermediate signals at about the

same level or shows gradual increasing strength as a 100 kc point is reached. Closing SW1 in the multivibrator will cut out the 10 kc beats and leave only the 100 kc markers. Periodical checks should be made to ensure that the harmonic order has not changed.

Finding Unknown Frequencies.

The above procedure covers the use of the instrument in bands that are already roughly known on the receiver dial. However, when it comes to the great "unknown" such as 56 mc, one must first locate the band. This meter is a great value to hams in the bush in this respect in that their present difficulty in locating the band can be overcome. The 100 and 10,000 kc coils now come into the picture. Step one is to locate 1000 kc in the B/C band either by picking up a station on that channel or by finding the appropriate harmonic from the 100 kc oscillator. Plus in the 1,000 kc coil and adjust the frequency to 1,000 kc. Of course the multivibrator should be off. Now pick up the harmonic on 14 mc which is easy, and tune the receiver lower in frequency, counting the harmonics until the 4th from 14 mc is reached. The receiver will then be adjusted to 10,000 kc. At this point plug in the 10,000 kc oscillator coil and adjust C1 to give the same frequency. The harmonics will now be spaced at 10,000 kc intervals, which should eliminate any possibility of picking the wrong one as a 56 mc band limit.

At this point the 56 mc coil should be plugged in at L2 and coupled to the 56 mc receiver. The latter is then adjusted to the 56 mc harmonic, which, on the assumption that the receiver is capable of tuning through the band, will be 60 mc. The adjacent harmonics are 50 and 70 mc, which should be far enough removed so that there is no doubt which is the right one. Should there be any uncertainty however, it can be overcome by using an essentially similar process, but with the frequency higher than 10,000 kc say 20,000 or 30,000 kc. But assuming the 60 mc point has been located the final step is to change the oscillator to 1,000 kc again, set it as accurately as possible, and note the band limits. Points will be available at 56, 57, 58, 59 and 60 mc. It is of course

possible to go even farther and get 100 or 1000 points using the 100 kc coil and the multivibrator.

56 MC. ACTIVITY IN W.A.

This Division proposes holding a 56 mc. test during the period 6 p.m. Saturday, 29th April, to 6 p.m. Monday, 1st May, 1939 (local time); it is our intention that five complete stations be set up, transmitters to be crystal-controlled, receivers are all super-hets. Schedules have been drawn up whereby each participating station will observe a compulsory listening period of approx. 12 minutes during each hour of the test, so that at all times there will be at least one station listening. Power used will be the maximum allowed and available, and it is hoped that we will at least establish a local DX record, if not an interstate one.

(Continued from page 3.)

4.—That a 160 metre contest be held during the winter months.

5.—That the Federal Executive co-ordinate 56 mc experimentation.

In addition, the Emergency Communication Scheme sponsored by the Victorian Division was passed by the Convention and is being forwarded to all Divisions. Finally, a new Federal Constitution was drawn up as the old one did not make provision for guidance on many new aspects of Federal and Divisional Government. One radical change is the new method adopted for payment of per capita fees for financing the Federal body.

Many matters of vital importance to the Amateur in Australia were discussed and courses of action decided upon, but until the outcome of negotiations with the appropriate bodies is known, publicity would not be in the best interests of all concerned.



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1938 VK-ZL DX Contest Results

1155 G.M.T., Saturday, 1st October, 1938—A silence that could be felt.

1158 G.M.T., Saturday, 1st October, 1938—A few of the gang whose watches were fast.

1200 G.M.T., Saturday, 1st October, 1938.—It's on. The 1938 VK-ZL. Pandemonium!

At 1200 G.M.T. Saturday, 1st October, 1938, it appeared as though every station in Australia and New Zealand was on the air endeavouring to contact the rest of the world. The long awaited 1938 VK-ZL, organised and controlled by the New South Wales Division of the Wireless Institute of Australia, in co-operation with the N.Z.A.R.T., was on and well under way.

1938 was the first time that the Contest had received Government recognition, and the Contest Committee were enabled to devote considerable time and money towards making known the rules.

The contest was an unqualified success, and from all parts of the globe came letters of congratulation and thanks. In VK-ZL, in both the Senior and Junior Sections, entries were almost double those of 1937, and there was a large increase in the number of entrants from overseas.

In each section of the Contest there were three trophies to be won, in addition to certificates for high scoring stations.

Firstly, for that station outside VK-ZL who obtained the highest score. This trophy has been won by W. M. Atkins, W9TJ, with a score of 19,740 obtained from 118 contacts on three bands in 28 districts. W9TJ is closely followed by Dale Schulyer,

W6KRI, who scored 19,376 from 120 contacts on three bands in 28 districts. Although these two stations only had a difference of two contacts, W9TJ's contacts covered a greater number of stations in each district. Other fine scores were those of W5WG, 17,334; W6OEG, 14,856; K6CGK, 14,508; VR4AD, 12,308; and J2JJ, 9,398.

Second trophy was for the highest scoring VK-ZL station, and that has been won by C. Willer, VK2ADE, with a score of 91,300 points obtained from 205 contacts on two bands and a multiplier of 55. S. Gibbs, ZL1DV, with a score of 67,940 obtained from 205 contacts on two bands and a multiplier of 43, was second, whilst another ZL in the shape of ZL2QA, A. Bailey, was third with 64,974.

Third trophy was for competition between the districts of Australia and New Zealand, and was won by N.S.W. with a score of 258,551 points, followed by Queensland with 187,514, and the New Zealand Second District with 127,093. VK2's points were made up as follows:—VK2ADE, 91,300; VK2HF, 62,656; VK2TI, 35,002; VK2RA, 32,439; VK2VN, 20,648; VK2EO, 16,506. An effort worthy of special mention was that of D. Duff, VK2EO. 2EO obtained his points from one weekend's operations and using one band only. Well done, Dave!

Every log received was checked and cross checked and it was found that some competitors did not take advantage of using more than one band, and when they did only counted the different prefixes worked on each band instead of all. If some competitors find their score increased they will now know the reason!

Rules 12 and 13 were strictly enforced by the Contest Committee, and where any log showed a T6 report it was very thoroughly checked, and if this poor note was followed by T7's

and TS's the entrant was disqualified. A close watch was also kept on the band edges. The list of disqualifications at the end of the results is the outcome of the enforcement of these rules.

In the Junior Section three trophies were available for competition under the same headings as in the Senior Section.

The first trophy was won by B. Chapman, VR4BA, located in the British Solomon Islands, with a score of 8656 obtained from 82 contacts on two bands in 16 districts. A really good effort was that of G6XL, who scored 3340 points from 36 contacts in 10 districts, and using two bands.

Second trophy was won by W. G. Collett, ZL4BP, with a score of 27,118 points, followed by R. Beatson, VK4BB, 24,660; and A. Frame, ZL4GA, 17,461.

Third trophy was won by Victoria with a score of 45,083 points, very closely followed by Otago District of New Zealand with 44,579. Teamwork won the day here for VK3, as Otago's points were scored by two entrants only, ZL4BP and ZL4GA.

The Junior Section of the contest was inaugurated to enable the low power man to have his fun. Unfortunately quite a number of entrants were under the impression that no filter was required.

The Contest Committee would like to thank all those Societies who offered co-operation in publishing the rules of the contest and also collected and checked logs, and last, but not least, the competitors who helped make the 1938 VK-ZL the Contest of Contests.

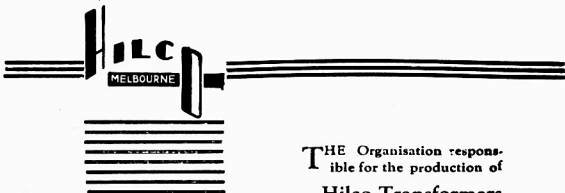
SENIOR SECTION.

Section 1.—Amateurs in Australia and New Zealand.

First column denotes number of contacts; second, number of different countries; third, multiplier; fourth, number of bands used; and lastly, points scored.

New South Wales.

VK2ADE	...	205	54	55	2	91,300
VK2HF	...	166	39	44	3	62,656
VK2TI	...	109	31	37	3	35,002
VK2RA	...	117	26	33	3	32,439
VK2VN	...	63	29	32	3	20,648
VK2EO	...	87	21	21	1	16,506
VK2DA	...	99	18	18	1	14,652



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Amateur Radio

VK2VA	...	70	15	15	1	10,170
VK2AV	...	73	14	14	1	10,080
VK2EG	...	50	18	18	1	9,900
VK2AJU	...	41	14	14	1	6,496
VK2UF	...	54	10	11	2	5,379
VK2CP	...	45	10	11	2	4,983
VK2SS	...	46	11	11	1	4,972
VK3AJK	...	39	10	11	2	4,653
VK2WA	...	50	9	9	1	4,455
VK2WH	...	30	11	11	1	3,784
VK2OE	...	17	13	13	1	2,613
VK2RB	...	25	9	9	1	2,547
VK2AFM	...	14	9	10	2	1,660
VK2AJF	...	15	13	13	1	2,327
VK2YC	...	13	10	10	1	1,540
VK2NP	...	15	5	5	1	815
VK2AHM	...	19	3	3	1	624
VK2BY	...	15	3	4	2	600
VK2TJ	...	21	3	3	1	519
VK2AIK	...	17	3	3	1	465
VK2ZJ	...	9	3	3	1	321
VK2PX	...	6	3	3	1	191
VK2FX	...	6	3	3	1	177
VK2AHI	...	4	2	2	1	94
VK2KJ	...	3	1	1	1	36

South Australia.

VK5FM	...	74	18	18	1	13,302
VK5FL	...	84	12	12	1	9,300
VK5LD	...	54	11	11	1	5,797
VK5JS	...	23	12	12	1	3,384
VK5IT	...	23	9	9	1	1,962
VK5LL	...	13	3	4	2	556
VK5LG	...	15	3	3	1	519
VK5HM	...	13	3	3	1	450
VK5JT	...	7	4	5	2	252

Victoria.

VK3KX	...	90	30	31	2	30,426
VK3HG	...	93	18	20	2	15,300
VK3WL	...	69	17	20	2	13,940
VK3VF	...	56	14	14	1	8,414
VK3EH	...	94	10	12	2	8,356
VK3NG	...	32	11	11	1	3,680
VK3TS	...	35	8	8	1	2,944
VK3XB	...	49	4	5	2	2,004
VK3RJ	...	30	6	6	1	1,920
VK3BV	...	34	5	5	1	1,720
VK3EQ	...	13	10	10	1	1,550
VK3CX	...	17	6	6	1	1,032
VK3DJ	...	14	5	5	1	815
VK3BG	...	17	3	3	1	537
VK3JA	...	11	3	3	1	375
VK3JE	...	8	3	4	2	372
VK3OI	...	12	2	2	1	272
VK3CT	...	5	4	4	1	240
VK3FV	...	5	2	2	1	120
VK3KC	...	3	3	3	1	108
VK3ZC	...	2	2	2	1	48

Queensland.

VK4JX	...	177	39	41	2	60,437
VK4BB	...	115	40	49	4	56,252
VK4AP	...	100	25	25	1	24,575
VK4UL	...	109	22	22	1	21,670

VK4JR	...	67	24	24	1	17,496
VK4SA	...	47	14	14	1	7,084
VK4AW	...	41	14	16	2	6,720
VK4SD	...	17	2	2	1	356
VK4RY	...	6	4	4	1	284
VK4LT	...	9	2	2	1	208
VK4JU	...	Check.				

Western Australia.

VK6AF	...	80	21	24	2	18,864
VK6MW	...	78	18	20	2	13,040
VK6FL	...	61	19	21	2	12,420
VK6SA	...	57	14	20	2	9,360
VK6LJ	...	50	13	14	2	7,336
VK6MN	...	15	11	13	2	2,613
VK6MU	...	5	3	3	1	210

Tasmania.

VK7JB	...	36	11	11	1	5,082
VK7LZ	...	36	11	11	1	4,875

New Zealand, ZL1.

ZL1DV	...	205	42	43	2	67,940
ZL1BT	...	84	20	21	2	15,183
ZL1BR	...	46	17	17	1	7,854
ZL1HY	...	34	15	13	2	5,445
ZL1FE	...	40	11	11	1	4,554
ZL1KE	...	28	5	5	1	1,385
ZL1CH	...	8	6	6	1	576
ZL1MR	...	4	4	3	2	192
ZL1FT	...	Check.				

New Zealand, ZL2.

ZL2QA	...	191	40	42	2	64,974
ZL2GN	...	179	31	32	2	42,720
ZL2GW	...	88	19	19	1	15,219
ZL2MM	...	56	10	10	1	3,020
ZL2AI	...	16	8	8	1	1,160
ZL2OU	...	Check.				

New Zealand, ZL3.

ZL3AZ	...	107	29	29	1	30,160
ZL3GU	...	71	20	20	1	14,500
ZL2AY	...	24	4	5	2	1,180
ZL3GR	...	15	4	2	1	648

New Zealand, ZL4.

ZL4DQ	...	181	40	42	2	62,832
ZL4BR	...	108	13	15	2	12,825
ZL4GY	...	39	11	11	1	4,620
ZL4AC	...	23	6	6	1	1,446

Trophy Point Scores.

VK-ZL.

VK2ADE	...	91,300
ZL1DV	...	67,940
ZL2QA	...	64,974
ZL4DQ	...	62,832
VK2HF	...	62,656
VK4JX	...	60,437
VK4BB	...	56,252
ZL2GN	...	42,720
VK2TI	...	35,002
VK2RA	...	32,439

Teams of Six from each District.

VK2	...	258,551
VK4	...	187,514
ZL2	...	127,093
ZL1	...	102,361

Amateur Radio

ZL4	81,723
VK3	79,116
VK6	63,631
ZL3	46,488
VK5	34,301
VK7	9,957

JUNIOR CONTEST.

VK2.						
VK2IG	40	21	21	1		8,925
VK2AJK	31	15	15	1		5,265
VK2AFJ	22	12	12	1		3,120
VK2TI	16	10	11	2		1,850
VK2YC	11	11	11	1		1,452
VK2QL	10	8	8	1		952
VK2RB	11	1	7	1		903
VK2AJU	10	6	6	1		642
VK2KJ	5	3	3	1		108
VK2AFM	1	1	1	1		12
VK2JX—Check.						
VK2AHI—Check.						

VK3.						
VK3XU	60	24	24	1		15,536
VK3HK	70	18	20	3		13,980
VK3IG	43	15	15	1		7,125
VK3XB	45	8	10	2		4,160
VK3HG	23	10	14	2		3,752
VK3RJ	9	5	5	1		530
VK3BG	6	2	2	1		72
VK3WL—Check.						
VK3QK—Check.						
VK3QV—Check.						

VK4.						
VK4BB	75	27	30	2		24,660
VK4SA	39	18	18	1		8,118
VK4AP	22	12	12	1		3,444
VK4LT	18	9	9	1		1,908
VK4JB—Check.						

VK5.						
VK5JT	15	10	10	1		1,710
VK5JS	12	10	10	1		1,439
VK5LY	9	8	8	1		856
VK5TX	4	4	4	1		192
VK5LG	4	3	3	1		144
VK5IT—Check.						

VK6.						
VK6AF	40	11	13	2		5,538
VK6NL	17	9	9	1		1,719
VK6LJ	14	8	8	1		1,312
VK6MW	7	5	6	2		492

VK7.						
VK7YL	12	8	8	1		1,123

ZL1GX—Check.

ZL2.						
ZL2HR	14	5	6	2		924
ZL2OU—Check.						
ZL2GW—Check.						

ZL3AZ—Check.

ZL4.						
ZL4BP	119	21	26	3		27,118
ZL4GA	98	18	19	2		17,461

Trophy Point Scores. Foreign.

VR4BA	8,656
G6XL	3,340
W6QAP	3,012
VU2EU	2,904
W...PFO	2,660
PKIBX	2,565
D4AFF	2,563

VK-ZL Amateurs.

ZL4BP	27,118
VK4BB	24,660
ZL4GA	17,461
VK3XU	15,536
VK3HK	13,980

VK-ZL Districts.

VK3	45,083
ZL4	44,579
VK4	38,130
VK2	21,564
VK6	9,061
VK5	4,332
VK7	1,128
ZL2	924

RECEIVING SECTION.

VK.		
VK3-ERS		135,521
BERS-195		58,539
A. Stowar		28,766
D. Robson		27,468
R. Tester		2,2626

ZL.		
ZL-166		34 128
ZL-420		7,781
ZL-419		1,080

DUNNINGHAM MEMORIAL TROPHY.

	C'tacts.	C'tries.	Pts.
VK2DG	735	64	47,040
VK3MK	432	48	20,736
ZL1BR	185	56	10,370
ZL1MR	165	46	7,590
VK4JU	185	40	7,400
VK4JP	173	37	6,401
VK5LL	111	18	1,998
VK5PS	123	16	1,958
VK2KJ	95	18	1,710
VK2CS	39	12	464
VK3HG	22	13	286
ZL4FB	26	8	286
VK3CX	163	37	6,031
ZL3JA	124	40	5,960
VK2TI	18	12	216
VK2AFJ	18	10	180
ZL1CH	10	5	50
VK4AW	15	3	45
VK2RA	6	5	30
VK5LG	5	2	10

28 and 56 M.C. Notes

(By A. Pritchard, VK3CP.)

We have seen another contest come and go, so that ten metres is starting to settle down once more to the usual experimental side of things. The cw section received good support on this band, and the phones had an absolute harvest judging by the number of W's on the job. VK3XP did very well with around 185 and 11 districts on 10. The first Sunday morning seemed to have the best conditions, and 50 were contacted here at 3CP in the three hours commencing 9.45 a.m. VK3EH often had a band full calling him, so evidently he has a nice score. No VK5's or 6's were heard called, although the following VK's were piling them up—2ADT, 2ALU, 2IQ, 2US, 2GU, 3XJ, 3EH, 3CZ, 3XP, 3BQ, 3KX, 4AW and 4JP. All helped to give those great numbers of W's their necessary DX. After the cw tests were finished the cw portion seemed dead and deserted, but not so with the phones; they seemed to keep going, hi! XE1A at 7.30 a.m. had r7 phone and XE2FY at 9 a.m. was r8. J3FZ had powerful phone practically all the morning, also PK1VY was r7 around 1.30 a.m. Incidentally, I was told by W9WIP that XE1A had 1303 contacts on 10 and 20, which really gives a score! It is interesting to note the different countries that took part, and the following list gives prominent ones, judging by the numbers calling them:—CE5DX, LU5AN, HC1PZ, VP1WB, CX2CO, HK3CG, J2KN, XU8AM, VO7VP, PK2WL, PY2AC. With more VK's on 10, there would be more scope for these fellows, and perhaps they would turn their beams our way more often—who knows? VK3XP has the 3 element beam fixed on his trellis tower, and it certainly looks well and works well. Ordinary steel conduit was used with a sleeve soldered over the joins (it can't be bought long enough in the one piece) and painted like the rest. The best way of rotating has not been decided upon yet,

I believe. VK3BQ has changed his QRA, and before dismantling the gear an 809 was tried in the regenerative 10 mx doubler against an 801. To give the same grid mills in the 50T final, it needed a plate current in the doubler of 55 mfls for the 809 and 100 mills for the 801, showing how superior is the 809. VK3YT and 3TT were here from Ballarat a few weeks back, and hearing the conditions were very enthusiastic for future 10 mx work. 3YT is putting a xtal controlled rig on 5 mx in the near future, which will be eagerly looked for by the Melbourne gang—more news later. 3XP reports a good contact with VU2AN, who was using 10 watts into a 6L6 on the 12th March last. It is with pleasure I can say that 3YP is practically ready to be on the air again—one of the reasons—rebuilding! There is practically no dope on experiments. The contest took all the time. Easter Monday showed a marked improvement in conditions with an absolutely full band all the morning, and the W phones were readable until 3 p.m. At 1.54 p.m., ZL1GZ, using his new three element beam, was heard working VK4VJ and had excellent signals here. The craze for those three element beams has hit ZL by storm, and ZL1GZ has made a job of it by using five-eight copper tubing. At 5.30 p.m. that afternoon the band was behaving most peculiarly, and showed a dozen J. Comm. harmonics as well as VK4VJ and VK4KA, both r6 phone, 20 metre harmonics, also VK4SA and VK6IG, CW harmonics from twenty. A number of the W's have now modified their three element beams by using one-quarter wave spacing so as to raise the eight ohms impedance at the centre to a more reasonable figure, thereby enabling them to utilise their popular concentric feeders.

DX Notes

(By VK3MR.)

Notes on the doings this month are very scarce. Perhaps it may be due to the after effects of the ARRL contests. No activity reported from the fone men! What's happened to him? I will be on the job myself very soon (what again, Ed.), but I have to install several wave traps in the aerials of the prisoners in the nearby Pentridge who are complaining bitterly of blanketing from my signals. They use snappy xtal receivers built in match boxes (dinkum, Ed., they do). Did you see Bill Moore's (2HZ) foto in QST last month? What a man! Bill has been wasting hard earned RF chasing a pirate using the call of AC4YN. The station using this call and with a T7 or less note is not the real AC4YN, who always uses xtal control. This was disclosed in a letter from him to 2AGJ. 2HZ has now worked 100 countries (who said about time). He pleads guilty to using ECO. Shame on you Bill.

It is with great pleasure that I mention the return to 14280 kc of VP5PZ, who is well known for his good operating. John has been inactive for a few years. Look at these and weep, AO, NY, K4, YM, VP5, VP1, OH, U, YL and VP7. What a list for the week. Sounds like the work of some gro merchant you might think, but no, its all done on 5 watts by Jeff VK2AHM. What does he use? Vee beams is the secret, the whole secret, too. Jeff has been plugging along with qrp, also 4 watts fone and has now worked 44 countries on cw. He has WAC'd four times now and does most of his work during the daytime and works on ten as well. Good work, om. Let's have some more dope before the 17th of each month.

2DG in between service jobs is still going strong. Fallen into the habit of winning more and still more dx contests. The latest is the "Dunington" Trophy. He also is the first VK2 to qualify for the DX Centenary Club. His number is 112 on the list dated 7th March. Some juicy ones worked by this young fellow-melad are HC9BR, 14155 kc at

1630; HI7G, 14030 kc, 2200; OA4AI, 14055 kc, 2200; CE3AA, 14050 kc, also 2200; and CE1AH, 14055 kc at 2130, and on fone too! How could you Keith! On cw his list is no less imposing. CX1CG, 14350 kc, 2230; CX1CX, 14210 kc, 2200; LU3HK, 14295 kc, 2130; VP9K, 14330 kc, 1700; and VP7NT, 14400 kc, 1700.

I understand that 2ADE is again the winner of the October contest. Congrats OM. I would like a few scores from the ARRL tests as it will help to lessen the great suspense felt by many competitors waiting for the final results. VK4GK and 4BB have both been awarded the B.E.R.T.A. on the 14th February. One has to work at least 25 out of the possible 27 British Dominion districts. Full list next month. I had the pleasure of meeting 4AW, 4RY, 2DA, 2YC and 7HM over the Easter holidays and what scandal! 73 to all. Keep sober.

Federal and Victorian QSL Bureau

(R. E. Jones, VK3RJ, QSL Manager)

VK listeners have advised that the Wireless Branch has requested listeners not to use calls commencing with VK.

Two recent call books in good condition are available at this bureau, the price being 4/- each posted. First in gets them.

F. W. Allen, W8GER, 324 Richmond avenue, Dayton, Ohio, U.S.A., who is QSL manager for the 8th district of U.S.A., is an ardent stamp collector and requests that when despatches of cards are forwarded to him that different varieties of stamps be used.

K4FCV, Ramon M. Marti, of Box 3783 Santurce, Porto Rico, has frequently had his call sign read by dx as VK4FC and Ramon has lost many needed cards thereby. A thorough search of the Federal and VK4 bureau has failed to discover any of the cards.

Madame la Baronne Bonaert de la Roche-Marchiennes, the widow of the late Baron, ON4HM, has graciously

(Continued on page 27.)

Divisional Notes

To ensure insertion all copy must be in the hands of the Editor
not later than the 15th of the month preceding publication.

N.S.W. Division

Zone 5 Notes (By VK2IG.)

Activity in this zone has fallen off considerably, but judging by the amount of reconstruction going on, there is surely going to be the need of some super selective supers.

VK2EU.—Is putting the finishing touches to his new speech amplifier, which in turn put the finishing touches on his bank account. It promises to be a swell job tho.

VK2OJ.—Again busy with antennas with varying luck. Hard to check on them just now with condx all cranky.

VK2AP and VK2QE.—Very quiet, but probably planning trouble for the rest of the gang.

VK2IG.—Getting some new DX at times, and using new antenna which gets to U.S.A. at any old time!! Don't they all—Cards to hand from FT4 es ZC6.

VK2AID.—Now transferred to Corowa, we think, after a super send off at VK2AEO's. Reports indicate that the send-offs were not sure just how many were at the party, 16 or 32. Hi!

VK2AEO.—Still at Wagga, and working the DX to some order. Now has 57 countries for eight months and no contests. Included in his list are TF, FU8, F18, VR1, VR4, YR, LA, VQ2, VP5, VP4, I, CR7, XZ, EI, HB, CT1, and CT6C, who is on a ship some place. That's nice work Pol om.

Border DX Notes (By VK2IG.)

DX has certainly been a changeable thing here this month, and some good countries have been work-

ed. Better ones heard and missed, hi! Also at odd times DX has been worked such as PK1TM at around 10 a.m. and W8's at all sort of times during the mornings. Last year VK2QE worked a W at 10.30 a.m. South Africa has been contacted during the afternoons, as has some of the Northern Africans. A rare one for the gang's notice or perhaps the R.I. is ZK9RP. We missed him so no QRA available. Also heard, but not Qso'd are YL2BZ on 14270 and YL2AB on 14270. Reported from VK2AEO are FM8AD, who is still calling Asia, and FA8AA who is on 14280. K6PMP is on Guam and not using the new prefix. CR7AU on 14300 is on around midnight. Here at 2IG we have contacted a few new countries as follows: OA4R on various freqs. and on 14400; I1IR on 14000 c. is at r8 when coming thru. Also I1IT on 13990. I1IR came on and called 2IG to tell him to finish off with I1IT for a qso, hi! LU6DJK is on 14280 most nights. CE3BF consistently on 14410 and a fb contact. He is also a stamp collector. LY1AH on 14360 and CT1JS on 14410 pretty regularly at night. VP6MY on 14090 is T9 at around 9 p.m. VP4TF 14300 and VP4TI on 14345 about the same time. VQ5HJP during the afternoons, but not on much. Among the rare ones we put YT7TE on 14400 or perhaps f4405. Also ZK9RP, 14395. LX1MB on 14415 is an easy one to raise. ES1E on 14360 though not so rare is not heard very often, and is a new one to many. VP5PZ still going strong and when qso'd here after calling him for weeks, said he was sorry for all the calls as he had often heard us at r8. Fb!! Particularly as we spent hours calling and also hours changing the antenna all round the yard in an effort to contact him!

Victorian Division

Key Section Notes (By 30C.)

What with one thing and another, your correspondent has been in a bit of a daze this month—a state which some of the less well informed may think natural. However, I deny it categorically, and attribute the cause, directly and indirectly, to radio. First of all, as most of you know, your unworthy scribe, in conjunction with his partner in crime, WG, was instrumental in staging a couple of stupendous, gigantic and colossal auction sales at the March Phone Section and April Key Section meetings, reverberations of which are only now fading away. Your correspondent has been reduced to the state of having to wear a false beard and creep furtively down back lanes for fear of being violently accosted by some citizen alleging that he was sold, for the sum of sixpence, a power transformer with a burnt out primary, or a squimduffit with no markings on it.

Under these harrowing circumstances it will be apparent to my two readers that it has been impossible to collect any data as to the individual doings of the boys. We can only assume that they are agitating the ether with more or less successful results, and that some of the condensers they purchased were not punctured, and are doing their duty in bringing the hitherto T8 signals up to an immaculate T9.

Outstanding events for the month as far as the Institute was concerned were the Convention and the annual dinner. Some details as to the results of the Convention will probably be given elsewhere in this issue, and as to the results of the dinner—well, they should have all been shaken off by this time. One story that came to your correspondent's ears concerned one of the boys who had dined rather well, and was driving a few friends home. He did not appear to be seeing things too well, so one of his passengers suggested that he take the wheel. "Good Grashus," said the fellow, "Don't tell me I wash driving thish car!" Well, that's

how it is, and if you have heard the story before, at least it's a good one.

Owing to the Easter vacation, there was not such a good rally at the dinner as might have been expected. A note of gloom was thrown on proceedings by the speech of Mr. Malone, who did not paint a very rosy picture of the future of Amateur Radio, but the warning was timely, and it behoves us now to put our own house in order so that we shall be in a position to meet whatever comes along.

At the dinner your correspondent found himself at a table in the immediate vicinity of IW (of kitchen stove receiver fame), CX, RX, MR and AG, and whether it was the musical sounds of these boys eating soup, or some other cause which induced a somnolent state, the fact remains that he was brought back to the world by RX propounding the merits of a receiver dial which he has invented. The idea seemed to be to provide rubber buffers at each end of said dial, so that when it had been swung over the band once it hit the buffers and swung through again on the rebound, making it impossible to miss a station calling. The idea will probably be incorporated in RX's new receiver.

Information has just been received from the florist that owing to the non-payment of recent accounts and advent of winter, supplies of orchids have been permanently cut off, so your correspondent will be unable to present the usual monthly bunch of these blooms to the deserving. Enquiries at the local brickworks were more encouraging, and in future brickbats will be hurled with great abandon at those eligible to receive same. One is already winging its way towards the head of the owner of a 14mc phone station, who has been heard on at least three occasions lately asking for somebody's handle.

At long last your correspondent has completed the construction of an audio amplifier. Finishing up with 45's in push pull it sounds pretty good, and on expounding its merits to the wife and pointing out how wonderful it was to think that on coupling it to the SW receiver and turning the switch London would

come booming in, the reply was to the effect that considering it was built for this purpose there was nothing amazing about it, and in her opinion it would only be considered amazing if on turning the switch pound notes issued forth from the speaker. I agree!

Monthly Meeting Phone Section: (By 3OB.)

Last Tuesday in month.
Good attendance at meeting on 28/3/39. With lecture by VK3KU on inductances and capacities for various wave lengths, and an auction sale of gear, the gang had a wonderful night. Quite a lot of good apparatus was sold very cheaply, and naturally hams got some excellent bargains.

200 Metres.

3AM—Usual quality on 200.
3DH—Off air for month. Married. Congrats.
3GK—Excellent if you don't "mess

about."

3PA.—Quiet. What's wrong?
3FL—Usual high class transmission and recordings.
3CB.—Usual activity and snappy records.
3LN.—Still making himself known.
3HK.—Alone at Mitcham; usual standard.
3RI.—Big noise around Melbourne, and excellent.
3BY.—Still going strong.
40-20.
3SO.—Quiet for a while, rebuilding new 7 tube receiver.
3IW.—Active on 20 and 10 fone and c.w.
3EX.—Interest in fone. Your carrier changes frequency occasionally. Om. Why?
3IK.—Fone on 80 bad, too much feedback, fb on 40 now.
3KM.—Bought a lot of junk recently. Fone shortly, Harry?



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NEW.—SKYRIDER 23, 11 tubes, 8 bands covering from 8.8 to 556 metres, crystal filter, audio output 5 watts.
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SPECIAL SUPER SKYRIDER, SX17, 13 tubes, 5 to 550 metres, 2 stages pre-selection, crystal filter.
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All models have universal transformer 110/250 volts AC (only exception is the Marine, which is 110 volts AC/DC only).
NEW MODEL HT 6 TRANSMITTER, 5 to 160 metres, crystal controlled and E.C. 25 watts fone or C.W.

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This is the last warning, chaps. If you don't send me any more doings of your activities I am not going to waste my time reading your minds.

4AW and 4RY called into the W.I.A. Rooms during April and were welcomed.

U.H.F. Section

(By 3JO.)

Section meets 3rd Tuesday each month at the W.I.A. Rooms.

56 Mc. Schedules.

A few months ago we asked in these notes for details of 56 mc. skeds. To date none have been received, and we once more appeal to the 56 mc. enthusiasts to get going at definite times and with definite transmissions, and before doing so please send in details of your intended schedules. Here is one schedule for a start—Station VK3JO, frequency 58.5 mc., dates, every Sunday; times 1230-1415 and 1700-1745 Melbourne time; antenna, non-directional vertical. These times correspond to the times of transmissions by the few 200 mx hams in Melbourne, and the 56 mc. transmissions will consist of rebroadcasts of these stations.

VK3 and 7 Heard in ZL.

A letter from Mr. P. A. Morrison, of Wellington, N.Z., was received last month, and he reported having heard some fone and c.w. on 56 mc. on Sunday, 26th February. VK3's were heard, but not identified, and VK7K—was heard calling cq. The times at which these signals were heard corresponds to the times of transmissions, and at Mr. Morrison's suggestion some daily schedules are being arranged, and will be in operation shortly. Suggested times are 1900-2100 Melbourne time, and if anyone is interested and would like to put on some transmissions we would like to hear from you so that we can pass on the information to Mr. Morrison.

Activity (?)

This month we have to report a newcomer and an old-timer—3PB and 3LG respectively. Although he has not been on the air for more than a few weeks, 3PB has already improved on his original rig, and now uses 6C6, 6V6G, 6L6 and T20 doubler as a final stage. The results are R7/8 here. 3LG is still using the 6A6, 6A6, 6A6, 6A6 com-

bination, but R6/7 here now. Just as we conclude we hear that 3DH has "been and gone and done it," and this section expresses hearty congratulations and all good wishes for the future.

WESTERN ZONE.

(VK3HG.)

3JA.—Has at long last received his genemotor back from repairs and is on full power again, but has little time to be on the air.

3GA.—Heard on 7mc with nice signal from QRP rig.

3SZ.—Not so active lately; working 3.5 mc mostly.

3TW.—Reported to be bitten with the dx bug again and is on 14 mc for that reason.

3kX.—Still heard occasionally on 14 mc when the Europeans are biting.

3XG.—Not been heard lately. How come, Ben?

3OW.—Working a few W's on 14 mc phone. Contemplating a new receiver to overcome 3HG QRM!

3II.—A regular on 7 mc phone now and with quite good quality transmission.

3HG.—Dx as usual. Sent cards away for Century Club, having 76 confirmed.

The Sunday morning hook-up has fallen through in the last few weeks, but it is hoped to get it going again soon, possibly on 3.5 mc now that that band is clearing of static.

EASTERN ZONE.

(By 3PR.)

The date for the Eastern Zone convention has been definitely fixed for 10th and 11th June and will be held at Sale. This promises to be one of the best conventions yet and an excellent programme is being arranged. A cordial invitation is extended to all to be present.

Unfortunately Thursday nights do not seem to be suitable for our weekly hook up so from 3rd May we will hold the QSO on Wednesday nights on 80 mx at 8 p.m. As many as possible are asked to get on for the hookup so that arrangements can be made for our forthcoming convention.

Now for some personal doings.

VK3DI.—Jim is not very active at present. Service work is keeping him very busy.

VK3QB.—Jack is fairly active on 40 mx cw and working quite a lot of dx.

VK3WE.—Bill still active on 80 inx fone and getting QRP rig going in between times.

VK3SS.—Keith is not very active owing to service work, but puts in a good signal when he gets on.

VK3HZ-XZ.—Nothing has been heard of these boys lately, but strange noises are coming over from 3UL occasionally and it sounds as if some rebuilding is being done over there.

VK3EA.—Haven't heard you for ages, Evan.

VK3PR.—Has built himself a baby super and is very pleased with its performance.

Queensland Division

(By 4RT.)

On Friday, 31st March, the twelfth annual dinner of the Queensland Division was held on the Roof Garden of the Atcherley Private Hotel. The gathering, which was the largest for several years, was well represented by hams from all walks of life, representatives of the trade, and a large number of radio enthusiasts. The chief guest was the senior radio inspector (Mr. Armstrong).

The president, Mr. A. E. Walz, when presenting his report, referred to the loss of frequencies at Cairo, the tragic death of Ross A. Hull, the work of the Institute, and the R.A.A.F. W/T Reserve. He mentioned the revision of the last mentioned, and pledged the division's support in its future progress.

The presentation of trophies, which was made by the president,

was as follows:—W.I.A. Council trophy: 4FB, first; 4TY, second. W.I.A. Institute trophy: 4HR, first; 4EL, second; special award, 4SN. McKen Gold Cup: 4TY, first; 4HR, second. Cran trophy: 4AW, first; 4UR, second. The president, having won the Can trophy twice in succession, retains same, but has intimated his intention of presenting a similar trophy for competition next year. Pennants were also presented to the minor place getters and the highest scores in the All Band Contest, 4AW, 4JF, and 4RY. Results of other competitions held during the evening were:—Farthest ham present, 4CN; milk drinking contest, 4FJ; lucky number, 4ZX; radio problem, M. Gabriel.

The following officers were elected for the forthcoming year:—President, 4AW, A. E. Walz; secretary, 4HU, G. Hughes; treasurer, 4UU, W. Chitham; five other officers, 4RY, W. Harston, 4RT, R. Thorley, 4ZU, H. McGregor, 4FJ, R. Baxter, 4DY, E. Wright.

The meeting was a huge success and ended too early at 11.30 p.m. Members are reminded that a New Students' Class is commencing at the rooms in Celtic Chambers, so please advise your second ops. The new year promises to be one of progress and assistance; country rembers are requested to send there suggestions to H.Q. so that the new council may commence duties under favourable conditions.

4AW.—Back from holidays in VIM with 4RY. Hope to see both in harness again.

4JX.—Not heard these days, waiting for contest Jack.

Note New Address!

Maxwell Howden
(VK3BQ)

15 Claremont Crescent,
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XTALS

• 80mx., Low Drift 15/-
• 40 mx., Thick Cut 20/-
• 20 mx., Thick Cut 40/-
Prices for Special Types on Application
Immediate Delivery.

4PX.—Encountering a lot of YL QRM. Have to put you in the silent keys with 4RF.

4WT.—Getting used to new QRA, but don't QRM those Europeans too much Willy.

4UR.—Breaking it down a little, Jack, not heard so much lately.

4UL.—Very quiet Paul (work or women), maybe silent key for you also.

4RG.—Heard on the wires and also on the air.

4RC.—Losing plenty of sleep lately, Bob, going for the C.C., but check your antenna system.

4FB.—Joined the ranks of motorists; better get the portable together Fred.

4HR.—Works Yanks on 20 as usual, hopes to do the same on 5 when in new QRA.

4DY.—About to break the silence, when mast decides to stay vertical; call a working B, Eric.

4AP.—Mopping up the dx, what about an order for some QSL's, Alf.

4FJ.—On the look-out for country on 40; our new zone manager.

4TY.—Congrats to you, Norm., a fine station.

4OK.—Putting a nice sig. into VIB, only QRP, I believe.

4CN.—Hope to hear your suppressor fone now Jim; Cribb Island a new country.

4RT is busy sharpening lawnmowers after the recent rains.

BUNDABERG ZONE.

4JJ.—Jim amusing the SWL's with records on 40 mx on Sundays.

4OJ.—New ham. Verdi has a new log book, wants to fill it, so give him a shout.

4HP.—Herb very worried about his super, striking bugs everywhere, better hurry Herb or you will have paid 30/- for nothing.

4XR.—Eric twisting dials up in Bundy at 4BU, going to rebuild with 809 in final.

4XO.—Mark off the air at present, but rebuilding.

Wanted to know.—Blonde 4XR rides to work with everyday 4XO; thinks he will QSY and QRM him.

South Australian Division

Once more the financial year comes to a close. The annual general meet-

ing was held on 19th April. Incidentally it saw the end, in a way, of the old Institute as on this date came into being the new constitution.

Unfortunately the delegate who was to represent VK5 at the Convention was unable to attend and so a proxy had to be appointed. We trust that something of a beneficial nature will result from this year's convention as did of last year's.

A further try-out of the emergency network will eventuate early this month and a bigger muster of gear should result from the enthusiasm of the last, which was quite successful.

At this moment I am unable to announce names comprising the officers for the next year, but no doubt these will be published in next month's issue.

Ten meters has been particularly good most mornings during the last month and quite a number of different countries were audible. Five seems the only band to get recreation these days, but here the only sig. is 5ZU, who plods away hoping that some dx will show up some time. Here's hoping, Maurice.

Well chaps, after over four years of writing these lines I feel that some one else should have the chance to bore you stiff, so these will be the last appearing from my pen. I wish to thank all for bearing with me all this time and trust that my successor will be equal to the strain of carrying on and so I wish him and you all the best of luck for the future.

Thanks a lot.

CLARENCE, H. CASTLE,
VK5KL.

BARKER ZONE. (By VK5GW.)

Well chaps, conditions here in Narracoorte are such that I find it impossible to keep in touch with the members of this zone. I have been on the air quite a lot lately, but have heard only one VK5, and his strength was only R3. For this reason I am going to suggest that I be relieved of the zone officer's duties and that someone in a more favourable position be appointed. Most of the reports received this month have been supplied by 5CJ. Many thanks, Colin.

5BN.—Graham appears to have devoted considerably more time to swimming than to radio, but nevertheless has managed to get a single sig. receiver working nicely on 20 mx, and also to blow up 4-48's in P.P.-parallel. This latter achievement has decided him to change to an 809 powered by a rotary converter.

5TW.—Finds time for a bit of cw work in the afternoons when not on duty at 5SE.

5XR.—Cam has been on from time to time. He receives good reports from Adelaide on his 40 mx telephony.

5BF.—Has recently built a new shack (super de luxe type) and at time of writing has not reappeared on 40 mx, although we understand that he is active on 20 mx.

5YL.—Betty, where art thou? Has the river greater attractions than the ether?

5BG.—Bob is still proving to the whole wide world that he has sufficient audio power to fully modulate his final RF stage.

5CJ.—On 40 mx regularly with 6A6-89-807 rig. A portable emergency rig is being constructed which

Colin proposes to power by means of a genemotor.

5GW.—May be changing QRA when the Narracoorte D.C.-A.C. changeover is completed.

WAKEFIELD ZONE.

Zone Officer "Hobby" unable to write up notes this month owing to having put a hitherto perfectly good index finger (right hand one only) out of order temporarily; can't even write out cheques, as he bitterly complains! Then, quite apart from that misfortune he has heard nothing from his zone members, and his imagination is fast becoming worn threadbare. Also he is working from daylight until dark gathering, or supervising the gathering of the harveston his fruit block. Perhaps in view of such a formidable combination of circumstances we can find it in our hearts to excuse him this time. Remember "Hobby," this must not occur again

LES, 5PN.

GREY ZONE.

(By VK5LC.)

Well chaps if your call sign does not appear in these notes its because

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3-5 Riversdale Road, Camberwell	— — — — —	W1188
97-99 Puckle Street, Moonee Ponds	— — — — —	FU7822

I have heard nothing of you or from you, and I won't appeal again for notes, so from now on if these notes are small and uninteresting you have only yourselves to blame.

5LG.—Leith has been pulling the receiver to bits every two days and has finally finished with det. and 2 audio. He is waiting to see if he is accepted for the R.A.A.F.W.R. This boy plays golf so radio gets a spell at times.

5HR.—Bill is fit again and on arriving home and looking things over finds things in bad way, batteries shattered, engine and generator badly burnt in places, but the receiver works and the rig looks as though it will go, so you can't keep a good ham down.

5RJ.—Finished rebuilding. Very nice fone, but I don't hear that cw that was supposed to come to light.

5RE.—Re the swap in A.R. notes. Now members, you are witnesses, I will swap. How do you get out of that Hobby?

5GU.—I hear via 5RJ that Bob is steadily rebuilding. He intends using 42 driving 802. Bob would like A.R. to publish an index every six or twelve months.

Had a letter from Frank Trembath of Port Augusta and he says he is still trying to master the code and as soon as he does will have a go at the ticket. Frank wants to meet the gang at W.I.A. meeting.

What does the Grey Zone Gang say to a round up on 80 mx during the winter?

5LC.—Not doing much due to lack of wind and batteries low. So have started on 40 mx. I find that a link coupled vee beam to a receiver reduces generator noise to a very low level.

Emergency Net

Since the recent disastrous bush-fires an emergency network has been formed, consisting of four sections, located as follows:—North, VK5KL (section leader); South, VK5RK; East, VK5LK; West, VK5HD; stand-by station, VK5ZU, and head control station for network, VK5JT.

It was decided to have a try-out on Sunday, March 19, to see how the network would function under actual working conditions.

Arrangements were made with the National Safety Council to supervise the test.

Mr. Hawke, in charge of the Communications Committee of the N.S.C., took charge, and handed a batch of messages with answers to each station taking part.

The members met at the W.I.A. room at 1.30 p.m., had their photo taken, received their messages and instructions and departed to take up their respective positions by 1.50 p.m.

The network was as follows for the try-out. A central control station with three transmitters was located near Yatala, on the assumption that the officer in control of the fire fighting organisation was located there. One transmitter was on 80 metres, another on 40, and another on 5 metres.

Four mobile outstations were located approximately ten miles north, south, east and west of this central station. They were on 80 metres, and were in charge of the following hams:—North, VK5KL; South, VK5RH; East, VK5DW; West, VK5RI.

The other channel on 40 mx band, worked between Yatala and the head control station at Burnside, VK5JT, who was in touch with the National Safety Council Headquarters by land telephone to pass any messages to and fro. VK5FM and 5TL operated the 40 mx station at Yatala. This channel functioned 100 per cent.

Mr. A. G. Bond, of Bond's Tours, kindly lent his plane for the test. Five metre transceiver was located on this plane, and operated by VK5LX and the 5 metre transmitter at Yatala was operated by VK5LK. The plane flew in a circle around Yatala and at times reached 5000ft., and the test with it was very good, although the operator on plane said that the noise level was very high.

The 80 metre channel with the mobile outstations functioned well, with the exception of the west, VK5RI, who was off frequency, and so was not located or worked. VK5LD was in charge of the 80 metre station at Yatala and did excellent work, handling 17 out and 12 in messages. VK5KL at the north assisted by VK5RT, was 100 per cent., as also was VK5DW, assisted

by VK5RW, VK5XA and VK5CR, at the west section. At the south there was a bit of a hold-up, but eventually VK5RH took over and was 100 per cent.

The following hams assisted in the try-out:—VK5LD, VK5FM, VK5TL, VK5JT, VK5KL, VK5LK, VK5LX, VK5GB, VK5RK, VK5GR, VK5RT, VK5RL, VK5DW, VK5RW, VK5CR, VK5XA, and others.

A notable feature of the test was that VK5FM's station at Yatala was on the air and in communication with Head Control station, VK5JT, 25 minutes after leaving the city.

Some of the gear used was: Single 6Y6G xmtr and single 19 received by VK5FM; single 19 transmitter and single 19 receiver by VK5RW; single 6L6 transmitter by VK5KL. These worked very well. The test was a great experience for members, and they intend to have another very shortly. Maybe an interstate one would be a good idea.

Tasmanian Division

As the hon. secretary was in Melbourne attending the recent Convention, no meeting of the Southern Zone was held. However, we are expecting a large gathering at the next meeting to hear the results of the Convention.

There are numerous qsl cards on hand for 7CM, KV and DH. It is hoped that we will see these members at the next meeting so they may collect them. Also there are numerous cards for non-members who will receive same upon the receipt of a stamped addressed envelope.

It is hoped that ex 7NG reads these notes as there are stacks of cards here for him and unfortunately we have no forwarding address, so will you please let us have it Roy?

Scandal.

7AG in Gretna is doing some fb work on 40 and 20 mx.

7CT.—Haven't heard the threatened noise on the ether yet, Terry. Too busy with the new job? Believe you have joined the Army signals. Nice work!

7CM.—Despite pretty solid study at the University, is working a lot of dx and VK's. Some of the dx is pretty good hunting. Charlie's num-

ber of countries has risen rapidly during the last two months.

7PA.—Heard quite regularly on the 200 mx band on Sunday mornings. We like the studio clock Peter.

7JB.—Buck, still in VIS, is shocking the Sydney police with his version of the traffic lights and regulations. Owing to excess work has little chance or time to do any radio work.

Hon Secretary "Chum" Moorehouse has just returned from VIM full of new ideas as a result of the Convention. Had an fb time we believe.

7YL.—Hoping to take a few excursions up to 80 mx with a band new rig. Has a brand new xtal which gives an excellent output.

NORTHERN ZONE.

(By VK7LZ.)

The April meeting of the Northern Zone held at the Y.M.C.A. Launceston was well attended. After all business had been attended to, Mr. Bob Bain, one of our members and a veterinary surgeon attached to the Animal Health Department, Launceston, gave a very interesting lecture which was enjoyed by all.

Advice has been received from our State secretary (Mr. H. Moorehouse) that the Australian Amateurs are to hear some bad news very shortly in regard to the narrowing down of our operating frequencies. With commercial stations and interests working their hardest to get move of our already small bands it is time that the Amateurs themselves realised the necessity of banding together to make the W.I.A. stronger than ever before, both financially and numerically so that we can fight this new menace.

Although we of Tasmania are weaker in numbers than the other States, let us try to show them that we are awake and willing to do our share towards making the W.I.A. the voice of the Amateurs. What say chaps? There are still active experimenters in VK7 who are not members of our division so as a start try to get these non-members to join up with us and explain to them the benefits derived from the Institute, both individually and collectively.

There are also still a few unfinancial members in our zone. What about making an effort to balance the ledger? Remember every little helps.

Our country members are still unheard of as yet and I have arrived at the conclusion that there are no active stations out of Launceston. Remember chaps we can't help you if we don't know your wants or grievances. Read the last two paragraphs over again and don't forget that old saying, "Divided we Fall." What about dropping me a line 7CK or someone. The "doings" of the various amateurs in our zone are as follow:—

7NR.—Heard quite often on 30 metres and has worked a couple of new countries.

7GJ.—Can be heard working dx from about 2 a.m. on any morning.

7BQ.—Very interested in 5 and 10 metres.

7DS.—Still chasing dx and just installed a W8JK beam.

7CJ.—Heard calling CQ on 20 the other night.

7LZ.—The miracle has happened. Just received a W.A.C. certificate predated two years ago.

7LG.—Now on the air again after a long argument about BCL's, etc.

7XL.—At the time of writing is on the boat on his way to Melbourne for a short vacation.

New Guinea Notes

(By VK9VG.)

With a final blare of "cq contest" we find we are back where we started and to an adding up of scores and pwr bills. Of the VK9 hams, VK9DK was the most consistent on the air during the contest, while your humble fought thru the qrm for a few contacts. Condx up hr were good for about an hr in the afternoon and for about two hrs late at night. With the coming of April the VK and ZL's are not coming in so well and it is a few weeks now since I have had a really good contact on 14 mc with VK. On 7 mc, condx are much brighter for working than they have been for a long time and VK2, 3, 4 have been wrkd hr quite a lot. The 40 metre rag chewers' club is still flourishing and PK6XX is the latest recruit.

9WL.—Back on the air again bigger, brighter and more cheerful than ever. Let's hope you are on to stay this time Laurie oc. Has a new xtal now and is looking for the dx on the low end of the band.

9DK.—Haven't hrd you for a few days Ernie, but hrd someone wrkg you so guess the rig is still going ok. Believe your little alternator has arrived and you are going on to full power. Well oc if your full power means a better sig. the rest of us had better start in now and get in ahead of you. And with an NC100XA receiver on order and a rotary ant. on the "slips." Well, I ask you!

9MC.—Bill gets on to 20 now and then, but can't seem to stick there. Has just bought a new Phillips receiver and tells me that is the first piece of factory built gear he has had in seven years.

9RC.—On the air again, but not so loud as before. Also still a bit of trouble with the receiver. Ron does not trouble the dx much but rag-chews on 40 with the gang.

9BW.—Saw Bill for about ten minutes the other day and he tells me he landed three new ones, EI, LU and HH and already has the crd frm the EI. Latest advice from the rigside is that he is rebuilding (for about the umpteenth time this year).

9RM.—Has now about seven countries on the hook and the walls are getting a few cards on them. Also has a new rx, a SW3, and hopes to get better results with it. The trouble with the old one was that every time anyone slammed a door the sig went and another took its place. The QSL crds have just arrived and Peter is flat out sending them.

9XX.—No news as yet but we still have hopes as it is rumoured Basil is pretty busy.

9GW.—At the new QRA, but not on the air yet. Tells me he has built his house and the "shack" was the first room ready.

9DM.—Not on to the dx yet but puts in an appearance on 40 for a rag chew now and then.

9VG.—Not doing much, but have decided to put the antennas up in the air a bit and a 50 ft. stick is about to be raised with the 8JK, $\frac{1}{2}$ waves in phase, doublets, etc., on top. Wrkd VP1 with the 8JK 8ft. above ground.

Since starting these notes I have hrd of two new VK9 and wish 9HB and 9NB a cheery welcome to the fold, good luck and plenty of dx when you get started.

(Continued from page 15.)

offered to carry on the QSL activities of her late husband, who endeared himself to all ON hams and rendered great service to the Resau Belge as QSL manager.

A party of scientists are due to leave Adelaide on 25th May to attempt the first crossing through the centre of the Simpson desert. They expect to cross in fourteen days, covering fifteen miles daily. A pedal transmitter is being taken and the operator will be R. A. Simpson, who will work with Harry Ding of Yunta.

Gordon Weynton, VK3XU, enjoyed during Easter week-end a splendid run to the Owens Valley district, running in a new Oldsmobile on the journey. Is looking forward to the next VK3 country convention which he hopes will be held in Bendigo.

Much pleasure was derived by the writer from a visit by Jim Corbin, VK2YC, QSL manager for VK2, and also that division's delegate to the 1939 Convention held in Melbourne. Jim, although still QSL manager, has delegated most of the duties to his good lady, which is more than the writer has been able to achieve, although some growing youngsters now render much appreciated assistance.

VK4UR

Effecting two way communication with well over 300 American stations in the recent A.R.R.L. DX Contest and getting reports as good as R9 from African stations requires something more than a good station—it takes a nice balance of intensive operating and knowledge of conditions, combined with the use of an aerial system that does its job properly.

The fact that VK4UR has the abovementioned performances to its credit shows that Mr. G. Bates, owner and operator of the station, knows how to make his signals heard throughout the world.

VK4UR, it is interesting to note, graduated from the ranks of the student members of the Institute, and came on the air early in March, 1935. The station does not employ the "high power" which the strength of

the signal locally might lead one to expect—that is, the valves and power supplies are no bigger than are found in hundreds of Australian amateur radio stations.

In the transmitter for 40, 20 and 10 metre operation, a single 801 constitutes the output stage; the plate input is normally 30 to 40 watts, which means that the final valve is worked well within its rating. Preceding the 801 is a link coupled 807 and the oscillator is a 2A5 in the popular tritet arrangement. For 160 and 80 metre operation a separate transmitter is used, employing 2A5 crystal oscillator and 210 power amplifier.

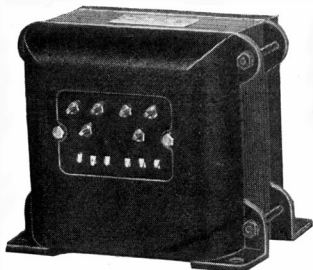
Both transmitters are mounted in a single rack with panels, the lower portion being used for housing the power supplies.

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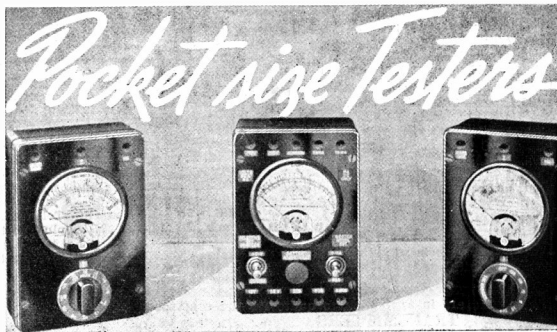
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